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ABSTRACT

This research assessed the impact of the experience of academic success and failure on the causal attribution patterns of low income Brazilian elementary school students. The sample consisted of 147 first, third, and fifth graders, previously classified as success or failure students. Causal attribution was measured through individual interviews and content analyzed according to Weiner's dimensions: locus, causality, and controllability. First graders were pre- and post-tested. The cross-sectional analysis across the grades revealed the differential impact of school success and failure on the students' attributional patterns. While there was no difference between groups until the third grade, fifth graders classified as success or failure students presented a different attributional configuration. Among the fifth grade success students, the predominant attributional pattern to success was internal, stable, and controllable, suggesting consistent academic motivation, higher expectations of future success, pride, and self-esteem. Among the failure students, the predominant attributional pattern for failure situations was internal, stable, and uncontrollable, suggesting lower expectations of success and the arousal of feelings of fear, generated by the anticipation of future failures, reduced self-esteem, and feelings of shame. (Author/NB)

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School Achievement and Causal Attribution Patterns among Low Income Students

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Abstract

This research assessed the impact of the experience of academic success and failure on the causal attribution patterns of low income Brazilian students. The sample consisted of 147 first, third and fifth graders, previously classified as success and failure students. Causal attribution was measured through individual interviews and content analyzed according to Weiner's dimensions: locus, causality and controllability. First graders were pre and post-tested. The cross-sectional analysis across the grades reveal the differential impact of school success and failure on their attributional patterns While there was no difference between the groups till the third grade, success and failure 5th. graders presented a different attributional configuration. Among 5th graders SS the predominant attributional pattern to success is internal, stable and controllable, suggesting consistent academic motivation, higher expectations of future success, pride and self-esteem. Among FS, the predominant attributional pattern for failure situations is internal, stable and uncontrollable, suggesting lower expectations of success and the arousal of feelings of fear, generated by the anticipation of future failures, reduced self-esteem and feelings of shame.

School Achievement and Causal Attribution Patterns among Low Income Students

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The very high incidence of elementary school failure among low income children, has been a consistent problem in the Brazilian public school system for many years. In the state where this research was conducted our cohorts have shown that of every 100 children who started first grade in the decade of 1970 only about 33 finished the 4th grade and only 14 finished the eight grade (Gama, Salviato & Jesus, 1987).

Extensive research suggests that teachers believe that the causality of such high rate of failure is located on the conditions of living of the child that do not provide the adequate cultural and psychological environment for positive growth and learning. Quantitative and qualitative studies showed that public school teachers consistently attribute the failure of their students to the socio-economic condition of the family, their lack of interest in the child's education and socio-psychological characteristics of the child (lack of effort, lack of motivation, apathy, etc) (Gama, Lucas, Salviato, Jesus, Carvalho & Doxsey, in press; Gama & Jesus, in press, Gama, 1985; Mello, 1982). By perceiving the child as responsible for his/her failure, the locus of causality is displaced to the individual and family level and the student is doomed to fail even before beginning school.

However, the fact that many children, from equally poor

families are succeeding and staying at school, questions the assumption that poverty is the determinant of school failure. It is more likely that the teachers' causal perceptions associated to the student's experience of academic failure at such an early age and in an environment that values and reinforces success and achievement are, rather, the determinants of decreased motivation and the development of attributional patterns that are not achievement oriented and that, once established, make future failure more probable.

This study investigated the impact of the experience of academic success and failure in the development of causal attribution patterns of Brazilian elementary school students from families of low socio-economic status.

Assuming that the child's cognitions about the causality of his/her school performance has predictive value in the understanding of her/his expectancy of success and future achievement behavior, Weiner's (1986) attributional theory of motivation provided the conceptual framework for this study.

According to the theory, the causal search begins when the individual is confronted with an unexpected result, the non-achievement of a goal or when the event (and the outcome) are important to the person. In those cases, she or he will try to understand why such outcome has occurred. The causal search and the type of causality that is chosen is influenced by various determinants including one's individual history and the influence of others. For this reason it is not unreasonable to expect that

the teachers' causal perceptions of failure, mostly blaming the students, added to the student's academic history of success or failure in the early grades may have an important impact on his or her attributional patterns and consequently, future achievement.

Even though research has shown the relationship between causal attribution and achievement, it has also been criticized due to the fact that most of the studies with children were experimental. In that subject, Stipek and Weisz (1981) recommend that research be conducted in natural settings to assess the trans-contextual validity. This is the case of this specific research, which was conducted in the school environment.

Method

The Sample

The sample consisted of 147 students (grades 1,3 and 5). Eighty of them had a history of school success (had never been retained in the grade) and 67 a history of failure (had done poorly and been retained in the grade at least once). For the purposes of this paper, they will be called SS (success students) and FS (failure students). Subjects were randomly selected from two public schools. All children were from low socio-economic class. First graders were selected at the beginning of the school year, before they were evaluated, and classified at the end of the year. All others were grouped by their academic history and then selected.

Data Collection Procedures

Causal attribution was assessed in individual interviews. Each

student was asked to identify one school situation in which he or she had performed well and one in which they had done badly. Secondly the student was asked to explain why she or he had performed well or badly in the situation mentioned.

The design was quasi-longitudinal. First graders were interviewed twice, at the beginning of the school year (before they had been evaluated) and at the end of the school year (after three evaluations). Third and 5th. graders were only interviewed at the end of the year.

Analysis of the Data

The interview data was content analyzed by two judges and classified according to their causal dimensions: locus, stability and controllability and by type of situation: success or failure.

The classification procedure was conducted according to Weiner's (1986) suggestions except in the case of the controllability dimension. In this specific case, all causal attributions previously classified as external were also considered uncontrollable --- meaning, in this case, that these causes were not under the control of the subject him/herself. The authors believe that this type of classification is more relevant to the understanding of the student's future achievement behavior.

Statistical analyses were conducted for each of the dimensions, situations and grade level, comparing type of the attribution by achievement level of the subjects. McNemar's test was used to assess, in 1st. graders, changes between the pre and the post-test. Chi-square tests (or Fisher's test in case of low

expected frequency) were used to assess the relationship between type of attribution and academic achievement, by grade and combined.

A synthesis of the results by grade are presented on Tables 1 and 2. Only when there were significant differences, was the chi-square reported. In all other cases only the percentage frequency of the most common attribution is presented.[1]

Even though 147 students were interviewed, not all of their answers could be classified as causal attributions. In the success situation,124 (84.3%) of the responses were considered to be causal cognitions. In the failure situation only 97 (66%) of the responses were so considered. This low number was particularly due to the fact that 27 of the success students stated that they had never experienced any failure in school and therefore could not assign causality to events that did not occur.

Statistical analysis only took into consideration those responses classified as causal attributions.

Results

In none of the situations nor the attribution dimensions considered the McNemar's test showed changes from the pre to the post-test in the 1st. grade. Therefore, this section will compare only 1st. grade post-test results with 3rd. and 5th. grade.

Analysis of the locus of the attributions showed that, overall, SS, more often than FS, attributed their success in school

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[1]. Detailed presentation of all the results according to each of the situations and each of the dimensions considered is presented in Jesus & Gama (1989) and in Gama & Jesus (in press).

to internal causes ($\chi^2(1,N=124)=3.485$; $p<.02$). When analyzed by grade, this significant relationship was observed only among 5th. graders ---SS were more frequently internals for success while FS tended to attribute their success to external causes. Up to the third grade, most of the subjects believed that their success in school situations was due to internal causes.

There was no significant difference among SS and FS in the locus of their attributions to failure and the predominant causal attribution was internal.

Analysis of the stability dimension revealed different results by situation. In the case of success, most of the subjects (70.2%) attributed it to stable causes. This picture is basically the same in all three of the grades considered, with exception of a little over half of the 1st. graders FS who attribute their success to unstable causes.

In the failure situations results are distinct. Up to the third grade, there were no differences between SS and FS and their attributional pattern was predominantly unstable. In the 5th. grade, however, there was a significant difference between the two groups. There was a higher proportion of stable attributions among FS (72%) while SS largely still attributed it to unstable causes (57%).

The dimension of control, as it associates to concepts of power and will, has interesting implications for the understanding of causal attributions of children who grew up in poverty conditions, such as the subjects of this study. In the success

situation, the overall analysis (without consideration of grade) revealed a significant relationship between academic performance and causal controllability ($\chi^2(1,N=124)=8.524$; $p<.01$): Failure students (N=41; 73.2%), more frequently than SS, believed their success experiences were due to uncontrollable causes. Over half of the SS (54%) attributed their success to controllable causes.

In the analysis by grade the picture is much clearer. Both groups started and finished the 1st. grade believing their success was due to causes beyond their control. In the third grade the differences between the groups begin to appear, though not significantly ---64 percent of SS mentioned controllable causes as opposed to 57 percent of FS who mentioned uncontrollable causes. In the 5th. grade differences were significant and a higher number of FS (88%) cited uncontrollable factors as opposed to 54 percent of SS who mentioned controllable factors to explain their success.

In the failure situation, most subjects attributed such outcome to uncontrollable causes.

Discussion and Conclusions

This investigation was set up not only to identify the attributional patterns to school success and failure among elementary school children whose conditions of origin are poor but mainly to assess if the experience of being retained in the grade (as opposed to succeeding) has any impact in the development of these attributional patterns as they progress through school. This specific population of students has been dropping out of elementary school in epidemic volumes. If their initial motivation to achieve

is, in any way, affected by the traumatic experience of failure their attributional pattern should reflect these changes.

However, these changes cannot be identified in the statistical analysis within each grade level but in the logical analysis conducted cross-sectionally --- starting with the pre-test of 1st graders, before they had experienced any type of academic evaluation, to the 5th. graders, after at least five (in case of SS) or 6 years (in the case of FS) of successive evaluations.

Analyzed from this perspective one can conclude that,the experience of school success or school failure, does influence the development of the student's causal attribution patterns regarding his or her achievement and consequently their academic motivation towards future achievement. The impact of the experience is such that, by the time they reach 5th. grade, SS predominantly attribute their success to internal, stable and controllable causes while FS place the causality of their eventual success on external and uncontrollable, though stable, causes. If, for the first group, continued success is highly probable because it depends on them and their will, for the second, future success does not depend on them nor is subject to their control, even though they optimistically expect it to reoccur.

Attribution of causality to unsuccessful experiences also becomes distinct between SS and FS by the time they reach the 5th. grade but in terms of the stability dimension only. Success students assumed responsibility for their unsuccessful experiences and believed their causes were uncontrollable by them, but were

also unstable, i.e. they could change in the future. Students with a history of school failure, on the other hand, exhibited the attributional pattern of those individuals who seem destined to fail. They attributed their failures to internal, uncontrollable and stable causes.

The important issue here is to compare how 5th. graders, with different histories of achievement, attribute causality to situations that are equal to their common daily performance. The general configuration among 5th graders who have systematically experienced academic success reveals an attributional pattern to success that is predominantly internal, stable and controllable. This suggests consistent academic motivation, higher expectations of future success, hope generated by the anticipation of more success and feelings of pride and self-esteem. For those with a history of poor evaluation and school failure, the predominant attributional pattern for failure situations --- internal, stable and uncontrollable, is worrisome. In this case, stable attributions mean the reduction of expectations of success and the arousal of feelings of fears, generated by the anticipation of future failures. Besides, failure attributed to internal and uncontrollable causes also may suggest reduced self-esteem and feelings of shame.

Our data suggests that the experience of school failure at such an early age has a negative impact on the development of the students' motivation to achieve and it initiates a vicious circle in which failure generates failure.

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Table 1. Synthesis of the Analysis of the Causal Attributions according to the Success Situation, by Achievement Level and Grade

Attribution/ Grade level	Analysis	Achievement Level Success (%)	Failure (%)
Locus			
.1st. (pre)	no difference	external (55%)	internal (72%)
.1st. (post)	no difference	internal (57%)	internal (71%)
.3rd.	no difference	internal (72%)	internal (64%)
.5th.	$\chi^2(1,N=47)=9.82$*	internal (82%)	external (68%)
Stability			
.1st. (pre)	no difference	stable (65%)	stable (72%)
.1st. (post)	no difference	stable (57%)	unstable (53%)
.3rd.	no difference	stable (76%)	stable (64%)
.5th.	no difference	stable (82%)	stable (84%)
Controllability			
.1st. (pre)	no difference	uncont. (80%)	uncont. (64%)
.1st. (post)	no difference	uncont. (57%)	uncont. (65%)
.3rd.	no difference	control. (64%)	uncont. (57%)
.5th.	$\chi^2(N=1,47)=7.88$*	control. (54%)	uncont. (88%)

Note. McNemar's tests of pre and post-test distributions in the 1st. grade showed no significant changes.

* $p<.05$

Table 2. Synthesis of the Analysis of the Causal Attributions according to the Failure Situation, by Achievement Level and Grade

Attribution/ Grade level	Analysis	Achievement Level	
		Success (%)	Failure (%)
Locus			
.1st. (pre)	no difference	internal (57%)	internal (68%)
.1st. (post)	no difference	external (56%)	internal (82%)
.3rd.	no difference	internal (56%)	internal (53%)
.5th.	no difference	internal (71%)	internal (56%)
Stability			
.1st. (pre)	no difference	unstable (71%)	unstable (54%)
.1st. (post)	no difference	unstable (56%)	unstable (73%)
.3rd.	no difference	unstable (69%)	unstable (53%)
.5th.	$\chi^2(1,N=46)=2.88$*	unstable (57%)	stable (72%)
Controllability			
.1st. (pre)	no difference	uncont. (57%)	uncont (73%)
.1st. (post)	no difference	uncont. (67%)	control. (54%)
.3rd.	no difference	uncont. (62%)	uncont. (80%)
.5th.	no difference	uncont. (57%)	uncont. (76%)

Note. McNemar's tests of pre and post-test distributions in the 1st. grade showed no significant changes.

* $p<.05$